CLEARING OF PULMONARY METASTASES AFTER NEPHRECTOMY FOR HYPERNEPHROMA

MAXWELL L. GELFAND, M.D., AND JACOB A. BEGNER, M.D.

Cabrini Medical Center
New York, New York

SPONTANEOUS regression of pulmonary metastases following nephrectomy for renal cell carcinoma (hypernephroma) is rare. The literature reports only isolated cases,[1-4] and many observers doubt its occurrence. Recently we encountered a case that we believe merits reporting.

CASE REPORT

B.S., a 53-year-old white man, presented himself to one of us (M.L.G.) because of severe cough of several weeks duration. There was no history of fever, hemoptysis, or expectoration, and this dry, hacking cough kept him awake all night. He visited his local physician, who prescribed an antibiotic and cough medicine without effect.

His past history revealed that he had had a prostatectomy several months earlier, at which time an intravenous pyelogram was entirely normal. Physical examination revealed a well nourished and well developed man in distress from coughing. The pupils were equal and regular and reacted to light and accommodation. Ears, nose, and throat were normal. The chest was symmetrical and the expansion was equal. The heart was not enlarged and no murmurs, rub, or thrill could be detected. The rhythm was regular, and the blood pressure was 140/80 mm. Hg. The lungs revealed no dullness to percussion but bilateral wheezing, and basilar rales were heard throughout. The abdomen revealed a large rounded mass in the upper left quadrant. It was not moveable and no bruit was heard. The extremities showed no evidence of inflammation or edema. The rectal examination was normal, reflexes were intact, and the electrocardiogram was normal.

*Address for reprint requests: Maxwell L. Gelfand, 60 Gramercy Park, New York, N.Y. 10010

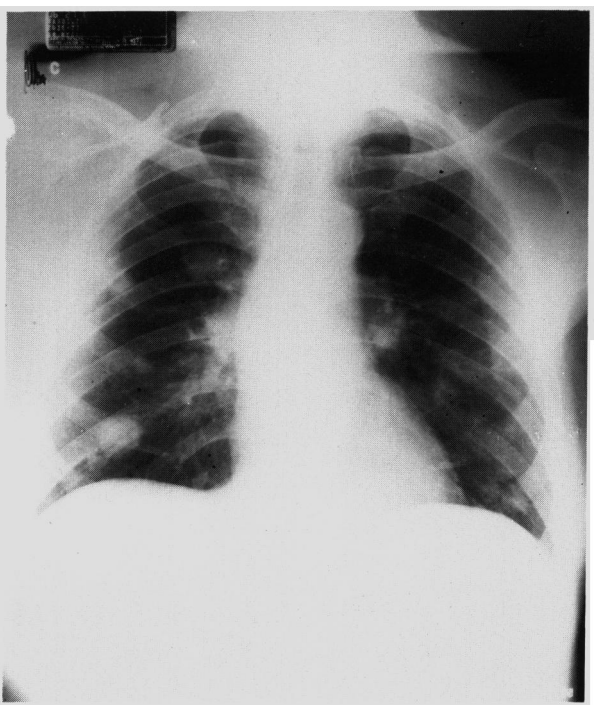

Fig. 1.

Fluoroscopy of the lungs revealed bilateral nodular infiltrating densities confirmed by roentgenograms (Figure 1).

The urinalysis showed a specific gravity of 1.016 with no albumin or sugar. Microscopically, there were one to two red blood cells and a few epithelial cells. The patient was admitted to the hospital and a large clear cell carcinoma of the left kidney was removed. He received no postoperative chemotherapy.

Lung densities began to clear at the end of the second week, and after two years the lungs appeared normal (Figure 2).

Discussion

Carcinoma of the kidney (hypernephroma) is the third most common tumor of the genitourinary tract in man. It constitutes about 1.7% of all malignant neoplasms in men and 1% in women.[3] At the time of diagnosis, approximately one third of the patients have evidence of distant metas-

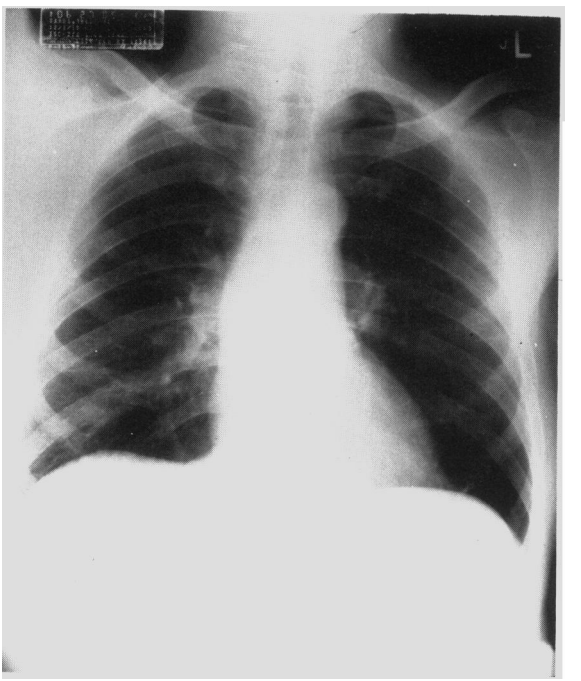

Fig. 2.

tases. Even with metastases, there may be a long survival at times.

Clinically, hypernephroma presents as a triad of symptoms, i.e., hematuria, a palpable mass, and fever. All three need not be present and one or two may suggest the diagnosis. A mass in the upper left quadrant of the abdomen may be mistaken for the spleen but further study or hematuria clarifies the situation. Often metastatic disease in the lung leads back to the original site, frequently the kidney. The most common distant metastases from primary cancers in the latter are bone, lung, and brain. Pulmonary metastases may appear as a single solitary nodule or diffuse nodular infiltrations, the so-called cotton ball type. The latter were present in our case.

The management of patients with metastases from renal cell tumors challenges the clinician. Although in metastatic disease of different organ sites surgery is looked upon with hesitancy, in renal cell carcinoma removal of the original tumor will sometimes cause regression of the metastases, particularly those in the lung.

The patient described above demonstrated disappearance of the pulmo-

nary metastases after nephrectomy for his hypernephroma. He felt considerably better, lost his disabling cough, and is still alive three years past surgery. Two years after surgery the chest x rays failed to show any evidence of metastases. This is not a very common experience but when it occurs it is gratifying. Some authors[6] report partial success with antitumor agents but Lokich and Harrison[7] find all the present therapies for renal cell carcinoma ineffective.

Some reports indicate that regression of renal cell carcinoma can be spontaneous without operation on the renal tumor.[5] Hormonal and immunologic mechanisms have been introduced to explain such events, an observation not shared by others. Since most forms of therapy for metastatic renal cell carcinoma have been disappointing and unpredictable, palliative nephrectomy in the presence of pulmonary metastases can be useful.

REFERENCES

1. Garfield, D. A. and Kennedy, B. J.: Regression of metastatic renal cell carcinoma following nephrectomy. *Cancer 30:* 190-96, 1972.
2. Jenkins, G. D.: Final report-Regression of pulmonary metastases following nephrectomy for hypernephroma—13 year follow-up. *J. Urol. 94:*99-100, 1965.
3. Marewitz, M., Taylor, D. A., and Veneema, R. J.: Spontaneous regression of pulmonary metastases following palliative nephrectomy. *Cancer 20:*1147-54, 1967.
4. Mann, L. T.: Spontaneous disappearance of pulmonary metastases after nephrectomy for hypernephroma—four year follow-up. *J. Urol. 59:*564-66, 1948.
5. Everson, T. C. and Cola, W. H.: Spontaneous Regression of Adenocarcinoma of the Kidney (Hypernephroma). In: *Spontaneous Regression of Cancer.* Philadelphia, Saunders, 1966, pp. 11-87.
6. Bloom, H. J. G.: Hormone-induced and spontaneous regression of metastatic renal cancer. *Cancer 32:*1066, 1973.
7. Lokich, J. J. and Harrison, H.: Renal cell carcinoma: Natural history and chemotherapeutic experience. *J. Urol. 114:*371, 1975.